

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

DATE: MAR 01 2004

SUBJECT: INSPECTION REPORT -Railworks Wood Products, Inc.- Terre Haute, Indiana

FROM: Joseph Ulfig, Environmental Engineer
Air Enforcement & Compliance Assurance Section (IL/IN)

THRU: Brent Marable, Chief 
Air Enforcement & Compliance Assurance Section (IL/IN)

TO: file

Date of Inspection: February 3, 2004

EPA Representatives:

Joseph Ulfig, Environmental Engineer, U.S. EPA
Brian Ellis, Permit Writer / Inspector, VCAPC

Company Representatives:

Sam Sutopo, Director of Environmental Engineering and Technical Services
Bryan Frazee, Operations Manager - Tar and Wood Products
Joe Michaels, Treating Supervisor Engineer - Wood Division
Tim Reeder, Supervisor - Tar Division

Purpose of Inspection: The purpose of this unannounced inspection was to learn about the operations carried out at the facility.

Company Information

Plant Location: 2525 Prarieton Road
Terre Haute, Indiana 47802-1960

Phone: (812) 232-2384

Contact: Sam Sutopo, Director of Environmental Engineering and Technical Services

Facility Description:

Railworks naturally and artificially ages railroad ties and treats them with creosote, an oily coal tar distillate that prolongs the life of the wood. Creosote, road tar, and coal tar pitch are all manufactured onsite in an enclosed gas fired distillation system. The tar and pitch products are sold to other companies, and account for 90% of Railworks' business.

Opening Conference:

We entered the facility and asked the secretary to contact Mr. Sam Sutopo, Railworks' Environmental Director. Mr. Sutopo met us and led us to his office where I presented my credentials and began our opening conference. I started by stating that the purpose of our inspection was to gather background information on the various processes and tanks present at the facility, and then asked Mr. Sutopo to give a general overview of Railworks' operations before we moved into a more detailed discussion.

Railworks naturally and artificially ages railroad ties and treats them with creosote, a thick coal tar distillate that prolongs the life of the wood. Creosote, road tar, and coal tar pitch are all manufactured onsite in an enclosed gas fired distillation system. The tar and pitch products are sold to other companies, and account for 90% of Railworks' business. Our discussion then turned to specific areas of operation, such as the still, wastewater treatment, boilers, storage tanks, and the wood treatment process.

The still was built around thirty years ago, and was designed to process batches of 10,000 gallons of coal tar. It is operated intermittently, only when a customer order is being processed, amounting to 230-250 days per year. On a yearly basis, about 2.5 million gallons of road tar (RT-12) and 100,000 gallons of roofing pitch are produced.

Inspection reports and permits issued by Vigo County Air Pollution Control (VCAPC) incorrectly identify that a stack and scrubber are present in the distillation system. Mr. Sutopo stated that the still system is entirely enclosed and is designed to capture all fractions of distilled materials. The still also has condensers built into the system to convert vapors of distilled materials back into liquid form to maximize production. These condensers have been a part of the still system since its construction. The only stack remotely associated with the distillation system is a duct in the building housing the two boilers servicing the still. This duct is used to vent the natural gas combustion emissions from the boilers. No scrubber of any kind is present at the Railworks facility.

We then discussed the wastewater treatment system at the facility. Oily wastewater is generated from both the tar division and the wood division, and each division has its own treatment system. In the tar division, wastewater is generated from occasional leaks in the condenser coils and other minute leaks throughout the system. The oils that cannot be removed from the water are directed to an enclosed, aerated, 25,000 gallon biological treatment unit. The wood division generates wastewater from the use of water sealed pumps, from the wood aging or boltonizing process, and from the oily water capture system in the cooling tower. Mr. Sutopo stated that the wastewater treatment process was an insignificant emission source because oils and grease only account for much less than one percent of the total wastewater volume generated per day, which is 21,000 to 23,000 gallons. The system operates by decanting the wastewater several times, removing more

oils and grease from the water and returning it to the process. After the water has been decanted through several separators it is passed through the cooling tower, which also collects any residual scum off of the surface of the liquid at each tray. The cooling tower was installed so that the hot liquids are not directly discharged to the local POTW. It is important to cool the water before it reaches the POTW so that the biological system is safeguarded from the high temperature, and biomass is not lost.

We also discussed the boilers and storage tanks at the facility. Mr. Sutopo said that he was in the process of correcting the heat production rating of the boilers as they are listed on the permit. According to the facility's Title V Permit, four boilers at the facility are rated at 10.75 MBTU, when in fact, three of them are at 7 MBTU, and one at 8,369 MBTU. The facility has over twenty covered tanks, including two 500,000 gallon tanks. These tanks hold everything from raw materials, to wastewater and distilled products. I asked Mr. Sutopo if he had investigated what regulations may be applicable to the tanks of various sizes at the facility. He stated that he had checked with local and state authorities, including the Indiana Department of Fire and Building Services.

Lastly, we discussed the wood treating process. The treatment process takes place in three cylinders, two of which are charged every other day with fresh lumber, and the remaining cylinder charged the opposite day. This process includes various steps such as removing moisture from the ties with a vacuum, removing water from the treatment vessel, adding creosote to the vessel under pressure to force the creosote into the wood, and then removing excess creosote from the vessel and lumbar with a vacuum. Because the oil used in this process is heavier than water, the wastewater is separated from the reusable oil by several stages of decanting and settling. The product that requires the most oil to produce, industrial grade ties, will require the facility to use 50,000 gallons of creosote per month.

Tour:

After our discussion, we took a tour of the facility's wood and tar divisions. In the wood division Mr. Sutopo pointed out the boilerplates on the boilers where it indicated that the two boilers were only rated at around 7 MBTU. On our way between the wood division to the tar division, we observed the wood division's wastewater treatment area. I observed an open flow of water from a spigot into a tank and was told by facility personnel that this was from the decanting process.

In the tar division we inspected the still system and the biological treatment system. The still house sheltered two boilers, one of about 7, and the other 8.4 MBTU capacity. The still system appeared to be entirely enclosed as Mr. Sutopo had claimed. The biological treatment system breaks down oils that cannot be recovered for use. These oils infiltrate the condenser's cooling water system by incidental leaks in the coils. Mr. Tim Reeder told me that the biological system was housed in an aerated and temperature controlled 25,000 gallon tank. He also stated that this system has not needed to be re-seeded in the past three years and that EC Labs has been contracted to sample the system to measure parameters such as BOD and COD. EC Labs then analyzes the data and instructs Railworks personnel to make appropriate changes in order to maintain the system's health.

Closing Conference

We concluded our inspection by obtaining copies of information we had asked for during our opening conference and exchanged contact information.